

# Vaccines 101

#### 2023 Edition





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Vaccinate Your Family now offers an online vaccine lesson for WIC clients! Contact Kimbra from WICHealth.org at kimbra.quinn@maiasynergy.com if you are interested in having

this vaccine lesson available for

your clients.

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**VACCINATE** YOUR FAMILY

#### Introduction

Vaccinate Your Family created this booklet to provide WIC staff with key messages about the importance of vaccination. The booklet also provides an overview of immunization screening guidance on making vaccine referrals to authorized providers. A list of immunization resources can be found at the end of this booklet.



#### Vaccine-Preventable Diseases (VPDs) and the Vaccines that Prevent Them

Disease	Vaccine
Chickenpox	Varicella
Diphtheria	DTaP
Hib	Hib
Hepatitis A	НерА
Hepatitis B	НерВ
Influenza (Flu)	Flu
Measles	MMR
Mumps	MMR
Pertussis	DTaP
Polio	IPV
Pneumococcal	PCV
Rotavirus	RV
Rubella	MMR
Tetanus	DTaP

#### Why are vaccines important?

- Vaccines save lives. Vaccines offer the best-known protection against a number of devastating illnesses, but they must be given according to the Centers for Disease Control and Prevention's (CDC) recommended immunization schedules (cdc.gov/vaccines) in order to best protect children, adolescents and adults.
- Measles is a very contagious disease that can cause serious health complications, hospitalizations and even death. The U.S. continues to experience measles outbreaks throughout the country. Travelers with measles continue to bring the disease with them into the U.S. and then spread it to others. The majority of people who got measles during the recent outbreaks in the U.S. were unvaccinated.
- COVID-19 remains a top 10 cause of death for many age groups in the U.S., including children over 5 years old.

- Large outbreaks of pertussis (also known as whooping cough) continue to occur in the U.S. Infants under 1 year old are at the greatest risk for serious illness and death from pertussis. There were 2,388 cases of pertussis reported to the CDC in 2022. To reduce the risk of pertussis in newborns, pregnant people should receive a Tdap vaccine during the 3rd trimester of every pregnancy.
- Young children and pregnant people are at high risk of severe flu illness and its complications. During the last influenza season (2022-2023), 166 pediatric deaths due to flu were reported to the CDC. Flu vaccination can be lifesaving in children. A 2017 study showed that flu vaccination can significantly reduce a child's risk of dying from flu. Flu vaccination has also been shown to help protect during and after pregnancy.



Every minute, five lives are saved by vaccines worldwide

## What happens when we delay vaccinations or don't vaccinate our children?

 Parents who obtain vaccination exemptions for their children are putting their children at risk for serious diseases. For example, studies have shown that children with exemptions are 22 times more likely to get measles than nonexempt peers.





more likely to contract measles in their lifetimes

 Parents who choose to delay vaccines or not vaccinate their children are putting their children and others in their community at risk. Diseases can travel quickly through a community and make a lot of people sick. However, when enough people are vaccinated against a certain disease, the germs can't travel as easily from person to person, and the entire community is less likely to get the disease. This is known as "community immunity" or "herd immunity." In order to protect everyone in the community, including those who cannot be immunized, from vaccine-preventable diseases, immunization rates must remain high.

## Why is it important to follow the recommended vaccine schedules?

- Healthcare providers, scientists and public health experts work to develop childhood and adult vaccination schedules in the U.S., giving people of all ages the most effective and safest protection from diseases possible. By following the CDC's recommended immunization schedule, parents can help give their children immunity before they are exposed to potentially life-threatening diseases.
- "Non-standard" vaccine schedules, which are not tested or approved by experts, put children at risk. It is not advisable to skip or delay vaccines, as this will leave a child susceptible to diseases for a longer period of time, a practice that can prove deadly for vulnerable infants. If a baby is not too young to get the disease, they are not too young to get the vaccine.

## How can we protect ourselves, our families and our communities?

- Getting vaccinated can protect others around you from getting dangerous vaccine-preventable diseases, especially young babies who have not yet received all of their vaccines and those who cannot be vaccinated due to medical reasons. We must each do our parts to limit everyone's exposure to diseases. Just as you count on others not to knowingly expose you to dangerous illnesses, they rely on you.
- When someone gets vaccinated against flu and pertussis (also known as whooping cough) during pregnancy, they are not only protecting themselves, but they are also giving some early disease protection to their babies. When a pregnant person gets vaccinated, antibodies are transferred to their developing baby, protecting the newborn for the first few months of life. However, this immunity decreases over time. That's why infants need to be vaccinated according to the CDC's recommended immunization schedule to stay protected against 14 serious and potentially life-threatening diseases.
- The CDC, the American College of Obstetricians and Gynecologists (ACOG), the American College of Nurse-Midwives (ACNM), the American Academy of Family Physicians (AAFP) & the Association of Women's Health, Obstetric and Neonatal Nurse (AWHONN) all strongly recommend flu and pertussis (Tdap) vaccinations for pregnant people.
- Parents should also request that anyone who will be around their newborn, including healthcare providers, childcare providers, friends and family members, be up-to-date on their pertussis (DTaP or Tdap) and flu vaccinations at least two weeks before meeting the new baby.
- People should get information about vaccines and their family's health from their healthcare provider and credible organizations such as the CDC, the American Academy of Pediatrics, ACOG, and Vaccinate Your Family.



#### Are vaccines safe?

- Since vaccines are administered to otherwise healthy people, they are among the most rigorously tested and safest medical products on the market. Once they are approved by the U.S. Food and Drug Administration (FDA) and recommended for use by the CDC's Advisory Committee on Immunization Practices (ACIP), continuous monitoring by four safety systems in the U.S. helps to ensure that each dose of the vaccine is safe.
- Concerns about the safety of vaccines and the possible link between vaccines and autism (and vaccines and other health conditions) are not supported by scientific evidence.
- No credible scientific study has ever found a link between vaccines and autism. In fact, Andrew Wakefield, the researcher who made the initial claim, has since had his medical license revoked. Wakefield's study, which was proven to contain falsified data, has been retracted from the journal that originally published it.
- Vaccines may cause mild side effects (such as fever or soreness at the injection site).
   Vaccines may also have severe, but extremely rare side effects (such as an allergic reaction). The potential harm from the actual diseases far outweighs the risk for vaccine side effects.

#### What are the ingredients in vaccines?

The main ingredients in vaccines are antigens, which are small amounts of the bacteria
or virus against which the person is being vaccinated. Antigens are the parts of the
vaccine that encourage your immune system to create antibodies to fight against future
infections. To make sure that the vaccines cannot cause the disease you are trying to
protect against, the antigens are altered or weakened. Like many of the foods we eat
and beverages we drink, vaccines also contain a small amount of additional ingredients,
and each has a specific, necessary function. These ingredients may be added to the
vaccine to make it more effective, sterile and/or safe. These additional ingredients have
been studied and are safe for humans in the amount used in vaccines.

#### For more information about vaccines, check out the <u>"Vaccines Explained"</u> animated video playlist on our YouTube channel!

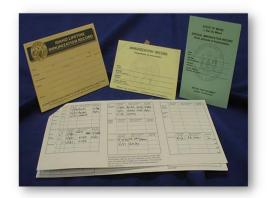
#### **Screening for Vaccinations**

#### **Counting DTaP Vaccinations**

In 2003, the CDC, in cooperation with USDA and the National WIC Association, developed a simplified method for WIC staff to monitor vaccination status of children under two years of age. The 4th dose of DTaP (diphtheria, tetanus and acellular pertussis vaccine) was chosen to be the marker to identify whether or not children were up-to-date on their vaccinations. Use of this strategy increased the immunization rates of WIC participants by ten percent.

When asked if a child is up-to-date, parents typically overestimate their child's vaccination status. A documented record of vaccinations is more accurate than a parent's memory. A documented record is a record (computerized or paper) in which actual vaccination dates are recorded. This includes a parent's hand-held immunization record (from the provider), a client chart (paper copy), or a printout from an Immunization Information System (IIS) or electronic medical record (EMR).

Immunization Information Systems, also known as immunization registries, are confidential, electronic systems that contain vaccination histories and provide immediate access to a child's current vaccination status. They are one of the most accurate ways to determine a child's vaccination status. IIS were created in conjunction with the CDC and are available in every state. Some states have more than one IIS. The majority of IIS in the United States allow WIC staff to access children's immunization records in the system. Some IIS allow "read only" access, while others allow WIC staff both "read" and "write" access. To find out if your WIC clinic is able to view vaccination records in your state or local IIS, please contact the IIS manager.



Pictured: older examples of immunization records (not including electronic records).

A list of state immunization information systems can be found on the CDC's website.

#### **Screening for Vaccinations**

#### **Guide to Counting DTaP Vaccinations**

An easy tool has been created to assist WIC staff in assessing children's vaccination status by counting the number of DTaP vaccinations they have received:

Child's Age	Minimum Number of DTaP Doses
Birth to One (1) Month	0
Three (3) Months	1
Five (5) Months	2
Seven (7) Months	3
Nineteen (19) Months	4

#### **Making Referrals**

Another important part of the vaccination assessment process is advising the parent about the results of the child's immunization screening and if necessary, referring them to a healthcare provider that gives childhood vaccinations. In addition, WIC staff may also want to provide them with other valuable resources such as a copy of the CDC's immunization schedule and/or one or more of the educational handouts from Vaccinate Your Family's 2023 Immunization Resources for Parents and Parents-to-Be (in English and Spanish),

If possible, work with your state or local immunization program staff to identify providers in your community who offer immunizations. Make a list of providers including private providers (pediatricians/family practice doctors); walk-in clinics; appointment-only clinics; mobile vans; and on-site immunization services.

### Check out the Paying for Vaccines tool on our website to help your clients find vaccine availability based on their insurance status.

#### 2023 Recommended Immunizations for Children from Birth Through 6 Years Old

	Birth	1	2	4	6	12	15	18	19-23	2-3	4-6
VACCINE		MONTH	MONTHS	MONTHS	MONTHS	MONTHS	MONTHS	MONTHS	MONTHS	YEARS	YEARS
<b>HepB</b> Hepatitis B	НерВ	Не	рВ			He	эрВ				
<b>RV*</b> Rotavirus			RV	RV	RV*						
<b>DTaP</b> Diphtheria, Pertussis, & Tetanus			DTaP	DTaP	DTaP		D	Ta P			DTaP
<b>Hib*</b> Haemophilus influenzae type b			Hib	Hib	Hib*	н	lib				
PCV13, PCV15 Pneumococcal disease			PCV	PCV	PCV	P	cv				
IPV Polio			IPV	IPV		IF	PV				IPV
COVID-19** Coronavirus disease 2019								COVID-19**			
<b>Flu†</b> Influenza							Flu (On	e or Two Doses \	(early) <sup>+</sup>		
<b>MMR</b> Measles, Mumps, & Rubella						М	MR				MMR
Varicella Chickenpox						Vari	cella				Varicella
<b>HepA<sup>‡</sup></b> Hepatitis A						HepA <sup>‡</sup>		Her	¢A‡		

#### FOOTNOTES



Administering a third dose at age 6 months depends on the brand of Hib or rotavirus vaccine used for previous dose.



of doses recommended depends on your child's age and type of COVID-19 vaccine used. age wh (flu) va and for

Flu<sup>+</sup> Two doses given at least 4 weeks apart are recommended for children age 6 months through 8 years of age who are getting an influenza (flu) vaccine for the first time

(flu) vaccine for the first time and for some other children in this age group. **HepA**<sup>+</sup> Two doses of Hep A vaccine are needed for lasting protection. The 2 doses should be given between age 12 and 23 months. Both doses should be separated by at least 6 months. Children 2 years and older who have not received 2 doses of Hep A should complete the series.

#### ADDITIONAL INFORMATION

 If your child misses a shot recommended for their age, talk to your child's doctor as soon as possible to see when the missed shot can be given. 2. If your child has any medical conditions that put them at risk for infection (e.g., sickle cell, HIV infection, cochlear implants) or is traveling outside the United States, talk to your child's doctor about additional vaccines that they may need. Talk with your child's doctor if you have questions about any shot recommended for your child.

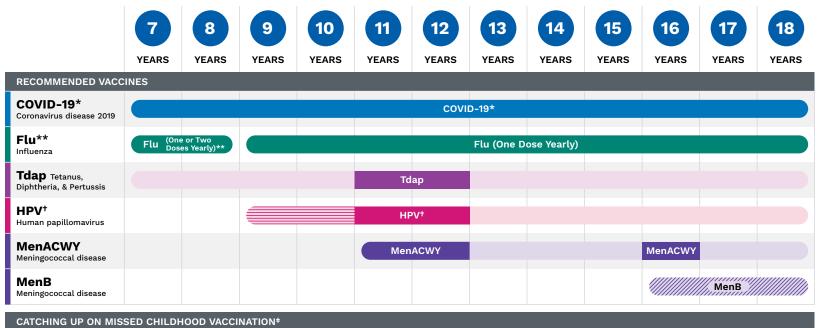


U.S. Department of Health and Human Services Centers for Disease Control and Prevention FOR MORE INFORMATION Call toll-free: 1-800-CDC-INFO (1-800-232-4636) Or visit: cdc.gov/vaccines/parents





#### 2023 Recommended Immunizations for Children 7–18 Years Old



<b>MMR</b> Measles, Mumps, & Rubella						M	MR				
Varicella Chickenpox	Varicella										
HepA Hepatitis A		НерА									
HonB											
HepB Hepatitis B						He	рВ				
IPV Polio						IPV					





#### FOOTNOTES

COVID-19\* Number of doses recommended depends on your child's age and type of COVID-19 vaccine used. Flu\*\* Two doses given at least 4 weeks apart are recommended for children age 6 months through 8 years of age who are getting an influenza (flu) vaccine for the first time and for some other children in this age group. **HPV**<sup>+</sup> Ages 11 through 12 years old should get a 2-shot series separated by 6 to 12 months. The series can begin at 9 years old. A 3-shot series is recommended for those with weakened immune systems and those who start the series after their 15th birthday.

\*Originally recommended age ranges for missed childhood vaccinations: 2-dose series of **MMR** at 12–15 months and 4–6 years; 2-dose series of **Varicella** at 12–15 months and 4–6 years; 2-dose series of **HepA** (minimum interval: 6 months) at age 12–23 months; 3-dose series of **HepB** at birth, 1–2 months, and 6–18 months; and 4-dose series of **Polio** at 2 months, 4 months, 6–18 months, and 4–6 years.



U.S. Department of Health and Human Services Centers for Disease Control and Prevention FOR MORE INFORMATION Call toll-free: 1-800-CDC-INFO (1-800-232-4636) Or visit: cdc.gov/vaccines/parents





Indicates when the vaccine is recommended for all children unless your doctor tells you that your child cannot safely receive the vaccine.

#### 

KEY

Indicates the vaccine series can begin at this age.

Indicates the vaccine **should** be given if a child is catching up on missed vaccines. A vaccine series does not need to be restarted, regardless of the time that has elapsed between doses.

#### 

Indicates children not at increased risk **may** get the vaccine if they wish after speaking to a provider.

#### ADDITIONAL INFORMATION

1. If your child misses a shot recommended for their age, talk to your child's doctor as soon as possible to see when the missed shot can be given.

2. If your child has any medical conditions that put them at risk for infection or is traveling outside the United States, talk to your child's doctor about additional vaccines that they may need.

Talk with your child's doctor if you have questions about any shot recommended for your child.

#### Immunization Recommendations

#### Vaccinations Before, During, & After Pregnancy

Vaccines help keep your pregnant clients and their families healthy! These recommendations are also supported by the American Academy of Family Physicians, the American College of Obstetricians and Gynecologists, the American College of Nurse-Midwives, and the Association of Women's Health, Obstetric and Neonatal Nurses.

Vaccine	Before?	During?	After?		
COVID	Yes	Yes	Yes		
Influenza	Yes	Yes (in season)	Yes		
Tdap	Yes, but better during pregnancy	pregnancy			
Hepatitis A	Maybe*	Maybe*	Maybe*		
Hepatitis B	Maybe*	Maybe*	Maybe*		
Meningococcal	Maybe*	Maybe*	Maybe*		
Pneumococcal	Maybe*	Maybe*	Maybe*		
HPV	Maybe*, through age 45	No	Maybe*		
MMR	Maybe*	No	Maybe*		
Varicella	Maybe*	No	Maybe*		

\*Vaccine recommendation depends on the pregnant person's vaccination status and specific risk factors.

#### **Additional Immunization Resources**

#### Vaccinate Your Family (www.vaccinateyourfamily.org)

This website, which is hosted by Vaccinate Your Family, contains information about immunizations for people of all



ages, stories about families who have been impacted by vaccine-preventable diseases, and answers to the many questions parents have about vaccines, their ingredients and their safety.

#### Immunization Resources for Parents and Parents-to-Be (2023 Version) (www.vaccinateyourfamily.org/vaccine-resources)

Immunization Resources for Parents and Parents-to-Be was created to provide resources to assist WIC staff and WIC participants who have questions about vaccines. This booklet, which brings together existing resources from the CDC and VYF, addresses the importance of immunizations for children, adolescents and adults (including pregnant women). Also included are easy-to-read immunization schedules, information on the Vaccines for Children (VFC) program and information about Immunization Information Systems. This booklet may be downloaded and copied in full or individual documents from the booklet can be copied and distributed by WIC staff.

#### Recursos de vacunación para padres y las mujeres embarazadas (Edición 2023) (www.vaccinateyourfamily.org/vaccine-resources)

Recursos de vacunación para padres y las mujeres embarazadas is the Spanish version of the Immunization Resources for Parents and Parents-to-Be booklet. It was created to help answer questions that WIC staff and Spanish-speaking WIC participants may have about vaccines. This booklet, which brings together existing resources from the CDC and VYF, addresses the importance of immunizations for both children and adults (including pregnant women). Also included are easy-to-read immunization schedules, information on the Vaccines for Children (VFC) program and information about immunization information systems. This booklet may be copied in full or individual documents from the booklet can be copied and distributed by WIC staff.

#### Fotonovela: Vaccines During Pregnancy (www.vaccinateyourfamily.org/vaccine-resources)

Vaccinate Your Family and Día de la Mujer Latina partnered to create this fotonovela answering common questions and concerns about vaccines during pregnancy.

#### **Additional Immunization Resources**

#### Vaccinate Your Family Poster for Daycares and WIC Clinics (https://ymiclassroom.com/lesson-plans/vyf)

Vaccinate Your Family created this colorful poster to promote vaccinations and other ways to stop the spread of germs. It may be downloaded, printed and used in many different settings.



#### Vaccines and Immunizations (www.cdc.gov/vaccines and www.cdc.gov/spanish/inmunizacion)

These sections of the CDC website contain information for the public, healthcare providers and immunization partners on vaccines and immunizations. The CDC also created an immunization section written explicitly for parents. The vaccine pages are also available in Spanish.

#### Talking to Parents About Vaccines (www.cdc.gov/vaccines/hcp/conversations/conv-materials.html)

This webpage provides resources created by CDC, AAFP and AAP that offer communication strategies for successful vaccine conversations with parents and caregivers. The page includes a handout can be given to parents who choose to refuse or delay their children's vaccines.

#### AAP's Healthy Children (www.healthychildren.org and www.healthychildren.org/Spanish/Paginas/default.aspx)

The immunization section of this AAP website for the public contains information and articles on vaccines for children and teens. This website is also available in Spanish.

#### ACOG's Immunization for Women (www.immunizationforwomen.org)

This website, developed by the American College of Obstetricians and Gynecologists (ACOG), contains immunization information for both OB-GYNs and their patients.



## Check out our new Animated Videos!

Get answers to commonly-asked questions about vaccines in our new "Vaccines Explained" YouTube video series!

Learn how vaccines work, vaccine safety, and a vaccine's journey through the human body!

Be sure to check out our Spanish videos too!



https://www.youtube.com/c/VaccinateYourFamily

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## Check out our

# eBooks!

Learn more about VPDs with our Child and Teen & Adult eBooks, currently available in English and Spanish.

Individual disease pages or the whole booklet can be printed and shared.



www.vaccinateyourfamily.org/vaccine-resources